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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SALVATORE, LYNDIA

ART UNIT PAPER NUMBER

1771

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,408

Applicant(s)

ADRIAENSEN ET AL.

Examiner

Lynda M. Salvatore

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 12 and 41-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 is/are allowed.
- 6) ☒ Claim(s) 1, 41-50, 52-58 is/are rejected.
- 7) ☒ Claim(s) 51 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment, accompanying remarks and Inventor Declaration filed 02/22/06 and 04/05/06 have been fully considered and entered. Claims 1 and 12 have been amended and new claims 41-58 have been added. Applicant's amendments are not found patentably distinguishable over the prior art made of record and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claim 1 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Adriaensen et al., WO 98/55682 in view of Zeng et al., US 5,807,430 for reasons set forth in section 4 of the Final Office Action dated 6/6/05. In addition, newly added claims 41, 45-50, 52-54 and 56-58 are also rejected for reasons set forth in section 3 of the Office Action dated 11/17/04 and section 4 of the Office Action dated 06/05/05.

Applicant argues that the instant claims are not obvious over the combination of prior art. Applicant's provide an Inventor Declaration and submits that the lower adhesion between the thermoplastic matrix and the wires provides improved resistance against cutting by a pair of shears. Applicant submits that this is viewed as more of an advantage than a drawback. Applicant further argues that the one of ordinary skill in the art would be discouraged from using a primer on the wire due to the increased manufacturing costs. These arguments are not found persuasive.

In response to Applicant's assertion that the lower adhesion between the matrix and the wires is considered an advantage since it provides improved resistance against cutting by a pair of shears, it is respectfully pointed out that while this may be the case, the prior art of Adriaensen et al., clearly teaches that the wires have a smoother surface and do not mechanically adhere so well to the matrix material. The Examiner maintains that this disclosure in combination with the disclosure that wires are less expensive materials would motivate one of ordinary skill in the art to look to the prior art to find ways to increase the bond strength between less expensive substrate materials (i.e., wires) and matrix material to produce a more cost effective reinforcement canvass. The secondary reference of Zeng et al., clearly teach the advantages of primer coating metal to improve the adhesion to matrix materials. To that end, the patent issued to Zeng et al., teaches treating metal surfaces prior to bonding with other materials such as rubber, polymers, sealants or coatings for the purpose of enhancing the strength of the bond and to provide prolong useful life in corrosive environments (Column 2, 46-50). Zeng et al., specifically teaches treating the metal surface with a compound comprising organoalkoxysilane having silane coupling functional groups (Column 2, 54-60).

Thus, given the disclosure that wires of Adriaensen et al., are suitable reinforcements, less expensive, and only suffer the drawback of not adhering well to the thermoplastic matrix material, the Examiner maintains that sufficient motivation exists to combine references to form the obviousness rejection above. It is the position that the rejection based on the combination or references is proper and renders the instant invention obvious.

4. Claim 1 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Adriaensen et al., WO 98/55682 in view of Czerwinski, US 4,308,365 for reasons set forth in section 5 of the

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Final Office Action dated 6/6/05. In addition, newly added claims 41, 43,44,46-50,52-54 and 56-58 are also rejected for reasons set forth in section 4 of the Office Action dated 11/17/04 and section 5 of the Office Action dated 06/05/05.

Applicant makes the same arguments as set forth above with respect to the combination of references.

To that end, the patent issued to Czerwinski teaches a reactive adhesive used to bond rubber to metal (Abstract). Czerwinski teaches that the adhesive provides environmental, weather, ultraviolet, chemical and thermal resistance properties (Abstract). Czerwinski teaches the adhesive may be applied as hot melt coating (Column 2, 50-55). Czerwinski teaches the adhesive comprises copolymers of ethylene (Column 3, 5-15).

Therefore, motivated by the desire to facilitate the adhesion between the metal member and the thermoplastic matrix material it would have been obvious to one having ordinary skill in the art at the time the invention was made to coat the metal members of Adriaensen et al., with the reactive adhesive compound taught by Czerwinski.

Thus, given the disclosure that wires of Adriaensen et al., are suitable reinforcements, less expensive, and only suffer the drawback of not adhering well to the thermoplastic matrix material, the Examiner maintains that sufficient motivation exists to combine references to form the obviousness rejection above. It is the position that the rejection based on the combination or references is proper and renders the instant invention obvious.

5. Claim 1 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Adriaensen et al., WO 98/55682 in view of Daisel LTD, JP 52126465A for reasons set forth in section 6 of the Final Office Action dated 6/6/05. In addition, newly added claims 41, 42,46-50,52-54 and 56-58

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are also rejected for reasons set forth in section 5 of the Office Action dated 11/17/04 and section 6 of the Office Action dated 06/05/05.

Applicant makes the same arguments as set forth above with respect to the combination of references. Applicant further argues that the prior art of Daisel is directed towards use in the fishing line industry and one of ordinary skill in the art would not look to the fishing line industry to modify the teachings in the field of canvases. In response to Applicant's arguments that Daisel is directed towards use in the fishing line industry, it is respectfully pointed out that the secondary reference of Daisel was relied up to evidence coating a metal with a primer containing organic solvent, curing the primer, and then extruding the thermoplastic resin is known in the art. Suitable primer materials include polyvinylchloride (PVC), epoxy-phenol or polybutadiene dissolved in organic solvent (Abstract).

Therefore, motivated by the desire to facilitate the adhesion between the metal member and the thermoplastic matrix material it would have been obvious to one having ordinary skill in the art at the time the invention was made to coat the metal members of in the Adriaensen et al., with the epoxy-phenol primer material taught by Daisel LTD.

Thus, given the disclosure that wires of Adriaensen et al., are suitable reinforcements, less expensive, and only suffer the drawback of not adhering well to the thermoplastic matrix material, the Examiner maintains that sufficient motivation exists to combine references to form the obviousness rejection above. It is the position that the rejection based on the combination or references is proper and renders the instant invention obvious.

6. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adriaensen et al., WO 98/55682, in view of Zeng et al., US 5,807,430 or Czerwinski, US 4,308,365 or Daisel

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LTD, JP 52126465A as applied to claim 1, and further in view of Carey, II et al., US 5,489,490 for reasons set forth in section 6 of the Office Action dated 11/17/04 and section 7 of the Office Action dated 06/05/06.

The combination of prior art fails to teach to teach coating the steel or low carbon steel materials with a zinc or with a zinc alloy layer, however, the patent issued to Carey, II et al., specifically teaches that a tin-zinc coating when applied to stainless steel or low carbon steel materials, imparts highly corrosion resistant properties (Column 4, 56-61).

Therefore, motivated by the desire to provide a fabric canvass reinforcement, which is highly resistant to corrosion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the coated the metal members of Adriaensen et al and Bailey et al., with a layer of the tin-zinc coating taught by Carey, II et al.

Allowable Subject Matter

7. As previously set forth in section 8 of the Office Action dated 06/05/06 claim 12 is found allowable.

Claim 51 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Specifically, the prior art of record fails to teach or fairly suggest a metal member having the claimed rounded I-profile. An updated search did not produce any new substantial art for which to base a rejection and presently no motivation exists to combine references to form an obvious type rejection.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M. Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 26, 2006

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